REMARKS/ARGUMENTS

Upon entry of the instant amendment, claims 1-6, 8-15 and 28-32 are pending. Claims 7-11 and 16-27 have been previously cancelled. Claims 1 and 28 have been amended to more particularly point out the applicants invention. It is respectfully submitted that the application is in condition for allowance.

CLAIM REJECTIONS – 35 U.S.C. § 103

Claims 1 and 28 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Thorson US Patent No 6,101,225 ("the Thorson patent") in view of the Horiguchi et al US Patent No. 6,133,791 ("the Horiguchi et al patent"). The Applicant agrees with the Examiner that the Thorson patent does not disclose modulation of the phase modulators by way of a pseudo-random code. With respect to the Horiguchi et al patent, even though it discloses a pseudo-random code generator for use in phase modulation (See Fig. 14 of the Horiguchi et al patent, for example), it does not disclose a two stage mixer wherein each mixer receives a local oscillator signal and in which the first local oscillator signal is phase modulated by a pseudo-random number and the second local oscillator signal is inverse modulated by the ***same*** pseudo-random number, as recited in amended claims 1 and 28. This is done to spread the power levels of any leakage spurs (i.e. spurious mixer products) from the first mixer. As such, it is clear that neither of the references discloses or suggests the structure recited in claims 1 and 28. Accordingly, it is respectfully submitted that the Examiner has failed to set forth a *prima facie* case of obviousness In particular, in order to establish a *prima facie* case of obviousness, three criteria must be met as set forth in MPEP § 2143.

> "First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim

> limitations. The teaching or suggestion to make the claimed combination reasonable expectation of success must both be found in the prior art, not in the Applicant's disclosure."

In particular, as discussed above, the cited references do not disclose all of the elements of the claims. In addition, the Examiner has failed to show that there was a suggestion to combine the references. In addition to the reasons set forth above, it is respectfully submitted that the Horiguchi et al patent specifically teaches away from the invention. More particularly, with reference to Fig. 14 of the Horiguchi et al patent, the output of the phase modulator 47 is applied to the input of a mixer 48. The phase modulators 43 and 52 are not applied to the mixer 48. The claims at issue require **both** the outputs of the phase modulator and inverse phase modulator be applied to the mixer. For all of the above reasons, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1 and 28.

Claims 2-5, 12-14, 29, 30 and 32 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Thorson and Horiguchi et al patents and further in view of Underbrink et al US Patent No. 6,754,287 ("the Underbrink et al patent"). The Thorson and Horiguchi et al patents have been discussed above. The Underbrink et al patent was cited for disclosing BPSK modulation. It does not otherwise disclose a two stage mixer wherein each mixer receives a local oscillator signal and in which the first local oscillator signal is phase modulated by a pseudo-random number and the second local oscillator signal is inverse modulated by the ***same*** pseudo-random number. For these reasons and the above reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Claims 15 and 31 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Thorson and Horiguchi et al patents further in view of Scott US Patent No. 5,784,403. The Scott patent was cited for disclosing GMSK modulation but does not a two stage mixer wherein each mixer receives a local oscillator signal and in which the first local oscillator signal is phase modulated by a pseudo-random number and the second local oscillator signal is inverse modulated by the ***same*** pseudo-random number. For these reasons and the above reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim 6 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over the Thorson and Horiguchi et al patents and further in view of Koslov et al US Patent No. 6,052,701 ("Koslov").The Thorson and Horiguchi et al patents have been discussed above. The Koslov reference was cited for disclosing a filter. It is respectfully submitted that the Koslov reference does not disclose a configuration as recited in Claim 6 for reducing the power level of spurs nor does the Koslov reference even address the problem. For these reasons and the above reasons, the Examiner is respectfully requested to reconsider and withdraw this rejection.

CONCLUSION

The Examiner is respectfully requested to requested to provide favorable consideration of the pending claims base upon the instant amendment and the remarks above.

Respectfully submitted,

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